

Application Serial No: 10/754,403
Responsive to the Advisory Action mailed on: March 31, 2008

REMARKS

This Amendment is in response to the Advisory Action mailed on March 31, 2008 and the Office Action mailed on December 13, 2007. Claims 1 and 2 are amended editorially and are supported, for example, in the specification on page 7, lines 23-32. Claims 21 and 22 are new and are supported, for example, in the specification on page 6, lines 9-11. No new matter is added. Claims 1-22 are pending.

§103 Rejections:

Claims 1-5 and 8-20 are rejected as being unpatentable over Voss (US Patent No. 7,233,354) in view of Fossum (US Patent No. 5,949,483). This rejection is traversed.

Claims 1 and 2 are each directed to a solid-state imaging device that requires, among other features, an adding circuit comprising an adding portion, a gain control portion and a storage portion, so that an output of the adding circuit is subjected to a gain control directly by the gain control portion and then stored in the storage portion.

The combination of Voss and Fossum does not teach or suggest these features. The rejection relies on Voss for teaching an adding circuit comprising an adding portion, a gain control portion and a storage portion, so that an output of the adding circuit is subjected to a gain control by the gain control portion and then stored in the storage portion. Voss is directed to a digital camera in which a gain of a variable analog amplifier (26) is set by a microprocessor (32) through a D/A converter (30), when an adjustment in CMOS pixel resolution is performed such that a plurality of pixels are combined into a group based on a quantity of incident light according to a look-up table (step 130) (see Figures 1, 1A and 2A-C of Voss). Because Voss requires that a number of pixels combined into a group is determined by the microprocessor (32), a gain control in Voss cannot be controlled directly, but has to be controlled outside of the adding circuit by the microprocessor (32). Accordingly, Voss cannot teach or suggest that a gain of the adding circuit is controlled directly by a gain control portion within the adding circuit as required by claims 1 and 2. For at least these reasons claims 1 and 2 are not suggested by the combination of Voss and Fossum. Claims 3-5, 8-11, 19 and 21 depend from claim 1 and should be allowed for at least the same reasons. Claims 12-18, 20 and 22 depend from claim 2 and should be allowed for at least the same reasons.

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Claims 6 and 7 are rejected as being unpatentable over Voss in view of Fossum and further in view of Takayama (US Patent No. 7,088,395). This rejection is traversed. Claims 6 and 7 depend from claim 1 and should be allowed for at least the same reasons described above. Applicants do not concede the correctness of this rejection.

Conclusion:

Applicants respectfully assert that claims 1-22 are in condition for allowance. If a telephone conference would be helpful in resolving any issues concerning this communication, please contact Applicants' primary attorney-of record, Douglas P. Mueller (Reg. No. 30,300), at (612) 455-3804.



Dated: April 14, 2008

Respectfully submitted,

HAMRE, SCHUMANN, MUELLER &
LARSON, P.C.
P.O. Box 2902-0902
Minneapolis, MN 55402-0902
(612) 455-3800

By: 

Douglas P. Mueller
Reg. No. 30,300
DPM/ahk